

## CLAIMS:

1. A method of manufacturing a layer of a cholesterically ordered polymer material, in which the material is oriented in such a way that the axis of the molecular helix of the cholesterically ordered material extends transversely to the layer, wherein the method comprises the steps:
  - 5 a. providing a layer comprising a cholesterically ordered mixture of a low-molecular weight polymerizable material and a high-molecular weight material, which high-molecular weight material comprises a quantity of a convertible group, which in its non-converted and in its converted state determines the pitch of the material to a different extent, the conversion of said high-molecular weight material being inducible by radiation, and the layer absorbs said  
10 radiation;
  - b. irradiating the layer to convert at least a part of the convertible groups in the irradiated parts of the layer;
  - c. letting at least the low-molecular weight material reorient to form the required helical structure;
  - 15 d. at least partially polymerizing and/or cross-linking the low-molecular weight material with itself and/or with the high-molecular weight material to freeze in the formed structure.
2. The method according to claim 1 wherein steps b and c are repeated before  
20 performing step d.
3. The method according to claim 1 or 2 wherein the low-molecular weight material comprises a nematic acrylate- or methacrylate-functional monomer.
4. The method according to claim 3 wherein at least part of the acrylate- or  
25 methacrylate-functional monomer comprises at least two acrylate or methacrylate groups.
5. The method according to any one of claims 1-4 wherein the layer further comprises a dye absorbing at a wavelength at which the convertible group photo-isomerizes.

6. The method according to any one of claims 1-5 wherein the layer comprises laterally sections with different main reflection wavelengths.
7. The method according to any one of claims 1-6 wherein the layer is a  
5 cholesteric color filter.